State Maps and Prescriptive Packages

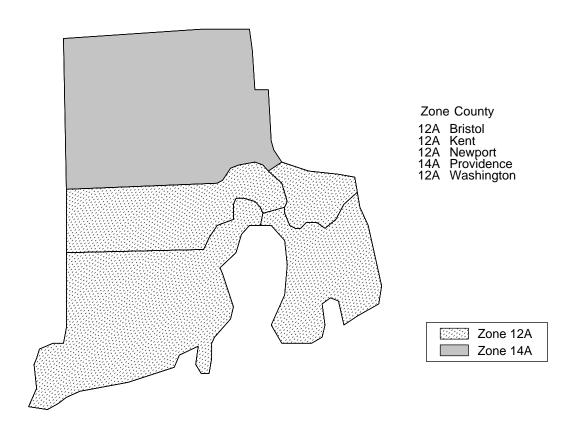
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The State Maps and Prescriptive Packages contain supporting materials that are needed when using the Envelope and Mechanical Compliance Guides. Insulation and other building envelope requirements and some mechanical system requirements vary by climate. The State Maps divide the United States into 33 different climate zones at a county level. Zones are numbered from 1 through 19 (consistent with the IECC and MEC*check* climate zones) and have a, b, and c designations to reflect climate differences that affect cooling; e.g., cooling degree days and solar radiation. The climate maps are unchanged from Version 1.

To determine the climate zone to use with your building, locate the map for your state and identify the zone number from the legend or county list.

To determine insulation and other building envelope requirements, find the prescriptive package number corresponding to your climate zone. The *Envelope Compliance Guide* employs a package approach that requires all components in your design to meet or exceed the prescribed efficiency levels contained in the prescriptive package. If you find the prescriptive packages too constraining, consider using the COM *check-EZ* software, which allows tradeoffs among building envelope components.

RHODE ISLAND



COMcheck-EZ™ Prescriptive Packages

Climate Zone 12a

Walls (a) No Motal Wood Framing or Framing Frame Frame Framing Frame				Fenestratior Window-Wall			m Fenestratio 25% Window-Wal			Fenestration 0% Window-Wa		Very High Fenestration Area (40%-50% Window-Wall Ratio)			
Famed Minimum R-Value NA 11 11 11 NA 11 11 11	Malla (a)											-			
Any Spacing		inner D. Valer			_			_					•	_	
CMU, 8in. or greater		imum R-vaiue	NA	11	11	NA	11	11	NA	11	11	NA	13	11	
Windows No. 3.25 mode of cavity insulation or insulation. No. 3.25 mode of cavity insulation. No. 3.2		imum R-Value	5	11	11	5	11	11	5	11	11	5	11	11	
No Stylight (Limit 3% of Roof Area) Skylight (Limit 3% of Roof Area) Skylight (Limit 3% of Roof Area) To Skylight				• • •	• • •		••	• • • • • • • • • • • • • • • • • • • •		• •	• • •	· ·	• • •	• •	
No		imum R-Value	5	11	11	5	11	11	5	11	11	5	11	11	
Projection Pro	Masonry Walls(c)														
Projection Pro			No	3 25	3.5	No	3 25	3 5	No	3 75	3 5	No	3 75	3 5	
Maximum Solar Heat Gain Coefficient Any An	Windows							-			-	-			
Any		-in One History	Trojection	1 TOJECTION	Trojection	Trojection	1 Tojection	1 Tojection	Trojection	i rojection	Trojection	Trojection	rrojection	Trojection	
Skylight (Limit 3% of Roof Area)	Maximum Solar Heat Ga	ain Coefficient	Any	Any	Any	0.6	0.7	Any	0.5	0.6	0.7	0.4	0.5	0.7	
Skylight (Limit 3% of Roof Area)	Maxii	mum U-Factor	Ally	Ally	Ally	0.0	0.7	Ally	0.5	0.0	0.7	0.4	0.5	0.7	
Roof Roof Continuous Roof Cavity Insulation Continuous Insulation Cavity Cavity Cavity Continuous Cavity			Any	Any	Any	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	
Continuous Roof Cavity Insulation Continuous Insulation Continuous Cavity Insulation Continuous Cavity Cavity Continuous Cavity Continuous Cavity Cav															
Continuous Roof Cavity Insulation The substitute Continuous Roof Cavity Insulation Continuous Cavity Insulation Continuous Cavity Insulation Continuous Cavity Continuous Cavity Insulation Continuous Cavity Cavity Continuous Cavity Continuous Cavity Continuous Cavity Cavity Continuous Cavity Continuous Cavity Cavity Cavity Continuous Cavity Cav	Skylight (Limit 3% of Roof Area)														
Insulation Ins	Maxii	mum U-Factor		0.8			0.8			0.8			0.8		
Insulation Ins	L														
All-Wood Joist/Truss 16			Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	
16 19 19 25 23 30 23 30	Roof		Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	
Nonwood Joist/Truss	All-Wood Joist/Truss														
17 25 20 25 24 30 24 30 24 30 24 30 24 30 25 25 25 25 25 25 25 2		imum R-Value	16		19	19		25	23		30	23		30	
Concrete Slab or Deck		. 51//			0.5	l		0.5	.						
Metal Purlin with Thermal Break Minimum R-Value Metal Purlin without Thermal Break Minimum R-Value Minimum R-Value Minimum R-Value Minimum R-Value 17		imum R-Value	17		25	20		25	24		30	24		30	
Metal Purlin with Thermal Break Minimum R-Value 17 25 20 30 Metal Purlin without Thermal Break Minimum R-Value 17 X X 20 X 24 X 24 38 Continuous Cavity Insulation All-Wood Joist/Truss Minimum R-Value Nonwood Joist/Truss Minimum R-Value 16 19 16 19 16 19 16 19 16 19 16 19 16 19 16 19 16 19 16 19		imum R-Value	16		NΔ	19		NΔ	23		NΔ	23		NΔ	
Metal Purlin without Thermal Break Minimum R-Value 17 X 20 X 24 X 24 X 24 38 Continuous Insulation Or		imam it value	- 10		, iva	- 13		NA.	- 20		107			IVA	
Minimum R-Value 17 X 20 X 24 X 24 38 Continuous Cavity Insulation or In	Mini	imum R-Value	17		25	20		30	24		х	24		30	
Continuous Cavity Insulation or Insulation All-Wood Joist/Truss Minimum R-Value Minimum R-Value Minimum R-Value Continuous Cavity Insulation or Insulation Insulation or Insulation Continuous Cavity Insulation or Insulation Insulation or Insulat															
Floor Insulation or Insulation Insulation or Insulation or Insulation or Insulation or Insulation Insulation or Insulation	Mini	imum R-Value	17		Х	20		Х	24		Х	24		38	
Floor Insulation or Insulation Insulation or Insulation Insulation or Insulation			Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	
All-Wood Joist/Truss Minimum R-Value 16 19 16 19 16 19 Nonwood Joist/Truss 16 19 16 19 16 19 Concrete Slab or Deck 16 19 16 19 16 19 16 19 16 19 16 19 Concrete Slab or Deck 16 19	Floor			or			or			or					
Minimum R-Value 16 19 16 19 16 19 Nonwood Joist/Truss Minimum R-Value 16 19 16 19 16 19 Concrete Slab or Deck 16 19 16 19 16 19			2.00.000												
Minimum R-Value 16 19 16 19 16 19 Concrete Slab or Deck 16 19 16 19 16 19		imum R-Value	16		19	16		19	16		19	16		19	
Concrete Slab or Deck															
		imum R-Value	16		19	16		19	16		19	16		19	
Minimum R-Value 16 NA 16 NA 16 NA 16 NA															
	Mini	imum R-Value	16		NA	16		NA	16		NA	16		NA	
Slab Edge or Basement Walls Insulation Insulation Insulation Insulation	Slab Edge or Basement Walls Insulation			Insulation			Insulation			Insulation					
	Minimum R-Value			0			0			8			8		

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (c) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>

- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.

COMcheck-EZ™ Prescriptive Packages

Climate Zone 14a

Envelope Component	Dipe Component Low Fenestration Area (0-10% Window-Wall Ratio)					n Area I Ratio)		Fenestration		Very High Fenestration Area (40%-50% Window-Wall Ratio)		
Melle (- L)	No Framing o	Metal r Framing	Wood or Framing	No Framing o	Metal or Framing o	Wood or Framing	No Framing o	Metal	Wood or Framing	No	Metal	Wood or Framing
Walls (a,b) Framed Minimum Cavity R-Value (c)	NA NA	13	or Framing 11	NA NA	13	11	NA NA	13	or Framing 11	NA	13	or Framing 11
Any Spacing Minimum Continuous R-Value (d)	NA	3	0	NA	3	0	NA	3	0	NA	3	0
CMU, 8 in. or greater Minimum Cavity R-Value with Integral Insulation(e) Minimum Continuous R-Value	NA 5	11 0	11 0	NA 5	11 0	11 0	NA 5	11 0	11 0	NA 5	11 0	11 0
All Other Minimum Cavity R-Value	NA	U	11	NA	U	11	NA	U	11	NA	11	11
Masonry Walls(f) Minimum Continuous R-Value	5	0	0	5	0	0	5	0	0	5	0	0
	No	3.25	3.5	No	3.25	3.5	No	3.25	3.5	No	3.25	3.5
Windows Maximum Solar Heat Gain Coefficient	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection	Projection
	Any	Any	Any	0.5	0.6	0.7	0.4	0.5	0.6	0.4	0.5	0.6
Maximum U-Factor	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4
Skylight (Limit 3% of Roof Area)												
Maximum U-Factor		0.8			0.8			0.8			0.8	
	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity	Continuous		Roof Cavity
Roof	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation
All-Wood Joist/Truss Minimum R-Value	17		19	19		25	23		30	23		30
Nonwood Joist/Truss Minimum R-Value	18		25	20		25	24		30	24		30
Concrete Slab or Deck Minimum R-Value	17		NA	19		NA	23		NA	23		NA
Metal Purlin with Thermal Break												
Minimum R-Value Metal Purlin without Thermal Break	18		30	20		30	24		Х	24		38
Minimum R-Value	18		х	20		х	24		х	24		38
	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity	Continuous		Cavity
Floor	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation	Insulation	or	Insulation
All-Wood Joist/Truss Minimum R-Value	18		25	18		25	18		25	18		25
Nonwood Joist/Truss Minimum R-Value	19		25	19		25	19		25	19		25
Concrete Slab or Deck			NA NA						NA NA			-
Minimum R-Value	19		NA	19		NA	19		NA	19		NA
Slab Edge or Basement Walls			Insulation				Insulation		Insulation			
Minimum R-Value	0			8				8		8		

Notes:

- (a) For walls next to unconditioned spaces, use the Low Fenestration Area wall requirements.
- (b) Where values are shown for both cavity and continuous insulation, both requirements must be met.
- (c) Cavity insulation is insulation between framing members or furring strips and does not refer to integral insulation in CMUs.
- (d) Continuous insulation is insulation that is continuous across structural members, and its effectiveness is undimished by compression or bridging.
- (e) Integral insulation in concrete masonry units may be perlite, vermiculite, or other insulating material. Minimum R-values are in addition to insulation in CMU voids.
- (f) Use of the Other Masonry Walls category is restricted to walls weighing 35 lb/ft2 or more; lightweight masonry veneers and unfilled CMUs <8 in. in thickness do not qualify.</p>
- "NA" indicates the category is not applicable.
- A minimum R-value of zero indicates no insulation is required.
- "Any" indicates any available product will comply.
- "X" indicates no complying option exists in the prescriptive packages.